

Interrupt

Interrupt Latency
Interrupt Priority

Interrupt service routines

- The program to be executed responding to interrupt activation

Sources of Interrupts

- 1- peripheral Interrupt
- 2- External Interrupt

- Interrupt Enable → IE
- Interrupt Flag → IF

PIC

* **INTCON** ↑ RBO ↑ Interrupt on change
External port B

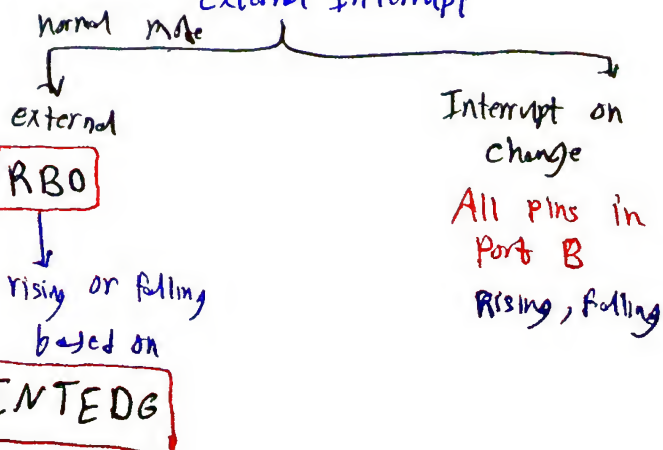
GIE	PE	TO	IN	RB	TO	IN	RB
IE	IE	IE	TE	IE	IF	TF	IF

- * **PIE1**, **PIE2** → peripherals Enable
- * **PIR1**, **PIR2** → peripherals Flag
- * **IOCB** → Interrupt on change Enable
- * **OPTION-REG (INTEDG)**

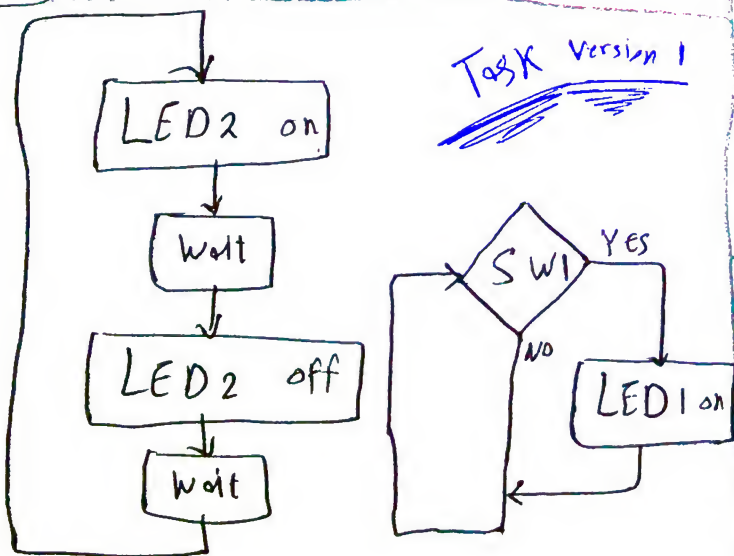
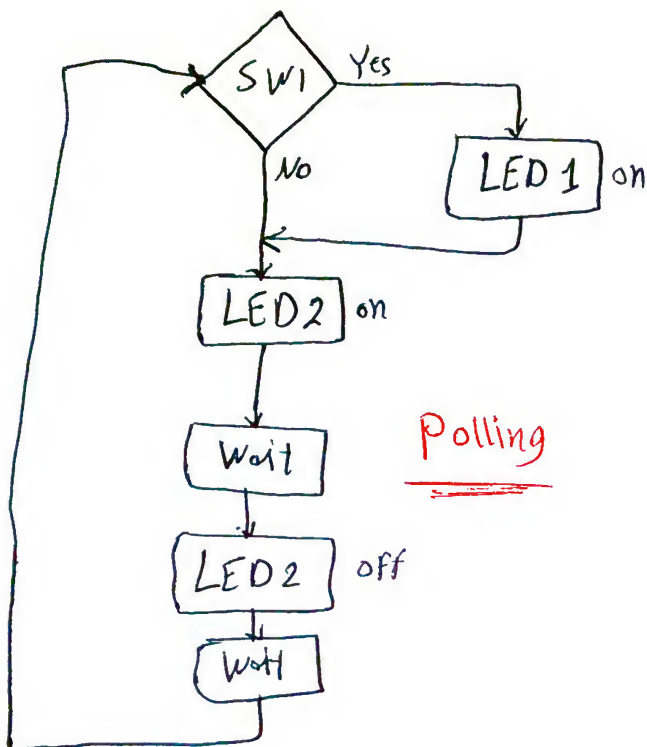
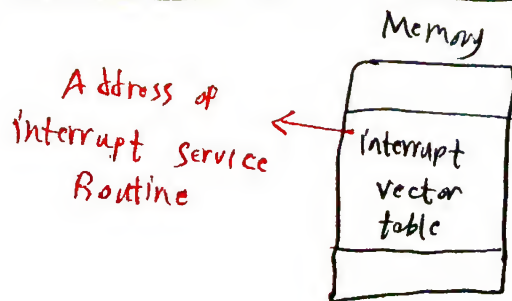
In PIC → Timer 0 is considered as internal interrupt not peripheral

PORT B

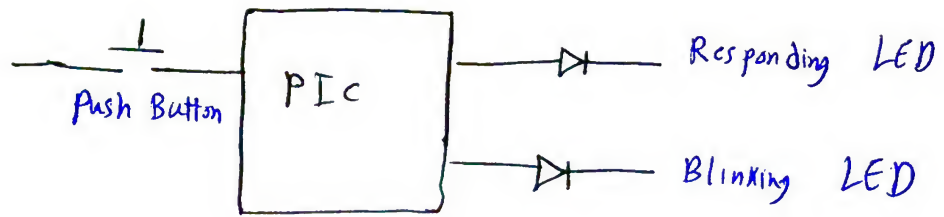
External Interrupt



interrupt (Hardware Signal)



Task



Version 1

Press push Button \rightarrow R LED on
Depress push Button \rightarrow R LED off

Blinking Led on/off Every 5 sec \rightarrow main

Version 2

Press push Button \rightarrow R LED on \rightarrow off
off \rightarrow on } \rightarrow Change state

Blinking Led on/off every 5 sec \rightarrow main